In the Specification

Please amend the specification as follows:

[0054] FIG. 5 depicts a representation of the transceivers 60 which form a part of each of the base stations 2 of FIG. 4. In FIG. 5, the transceivers 61 and 62 each include a co-located broadcaster (B) and collector (C). When employing SDMA protocols, ~~the~~ the transceivers 61 and 62 in some embodiments use smart antennas. The transceivers 61-1, . . . , 61-T.sub.1 are the transceivers that are present in an ordinary GSM installation. The transceivers 62-1, . . . , 62-T.sub.2 are the transceivers that are added in connection with fast macrodiversity switching. The transceivers 61 and 62 of FIG. 5 can be considered as a single pool allocated for any function in a base station 2 or can remain segregated so that the transceivers 61-1, . . . , 61-T.sub.1 are allocated for ordinary base station operation and the transceiver 62-1, . . . , 62-T.sub.2 are allocated by zone managers only for macrodiversity switching functions.

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[0057] The resource manager (RM) 21 within the ZM 13 controls the radio resources for fast macrodiversity switching services. In a typical BTS, a number of transceivers (see 61-1, . . . , 61-T.sub.1 in FIG. 5) are installed to provide the radio links to an MS. In a BS 2 of FIG. 4, additional transceivers, called guest transceivers (see 61-1, . . . , 61-T.sub.2 in FIG. 5) are installed. These guest transceivers provide the additional radio resources useful in implementing fast macrodiversity switching. In the basic implementation, as discussed above, radio resources provided by the guest transceivers are managed by the RM 21, while the allocation of the host transceiver radio resources remains under BSC 16-1 control. The RM 21 keeps track of all used and idle host and guest radio resources available in its host ~~BS~~ BTS including the transceivers of FIG. 5. It receives radio link information, for example in the form of measurement reports and other information, either directly from its corresponding ZM or from other ZM in assistant ~~BSs~~ BTSs via the ZM-to-ZM links 14. Since the transceiver stations communicate over a region containing one or more zones and the measurements are received from one or more collectors in the transceiver stations, the measurements from collectors include radio link conditions between a mobile station and the one or more collectors where the radio link information incorporates

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radio link conditions such as path loss, forward error rates, and carrier-to-interference ratio. The RM 21 in the host ZM also tracks radio resource usage in all assistant ~~BSs~~ BTSs through communications with the RMs in the assisting ~~BSs~~ BTSs. The RM 21 in the host ~~BS~~ BTS stores and updates this information in a radio resource data base (DB) 25. During installation, all RMs are initialized with the identity of those BTSs in the network that are candidates for becoming assistant BTSs and the specific radio resources available in these BTSs. Alternatively, the ZM's may communicate with each other to determine the identity of assistant BTSs both at setup time and periodically during operation. When the MDP 20 requests a radio resource, the RM 21 checks the priority level of the request and the availability (in location, frequency, time slot or spreading code) of a radio resource suited to meet the request as stored in DB 25. If no such resource is available, or if the priority level of the request is insufficient, the request is denied. Otherwise, the radio resource is released and the data base 25 is updated accordingly. The assignment of the radio resource is also communicated to the other RMs in other ZMs for updating their respective data bases.

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[0058] To perform the fast macrodiversity switching function, the ZM uses algorithms to track information in real time and to provide resource contention resolution, for the host ~~BS~~ BTS as well as for all assistant ~~BS~~ BTS, for each MS. The ZM controls the outgoing information flow on the links 14 to other ZMs including the bandwidth resources of the links 14 between host ~~BS~~ BTS and assistant ~~BSs~~ BTSs. The process of controlling the resources of the links 14 is analogous to the process of controlling the radio resources.

[0065] The ZM-to-ZM links 14 of FIG. 6 are used in fast macrodiversity switching. Referring to FIG. 1, a hierarchical control structure routes traffic between the PSTN 121 via a mobile switching center (MSC) 117 to an MS 4 through one of a number of BSCs (like BSC 16-1 in FIG. 1) and then through one of an even larger number of BTSs 12. With fast macrodiversity switching, however, up-link and down-link traffic is also routed between BTSs 12 through operation of the zone managers 13. In addition to routing traffic for fast macrodiversity switching services, the ~~ZM-to-ZM~~ ZM-to-ZM links 14 are used in the control of the fast macrodiversity

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switching process. This fast macrodiversity switching control function is distributed among the ZMs. The data exchange between ZMs for providing each other with the measurement, resource and other information needed for fast macrodiversity switching services, is carried over the ZM-to-ZM links 14. The control of this information flow is managed by the RM 25 in each of the ZMs, but the formatting, organization of the data and the actual transmission is controlled by ZM-ZM interface mangers 23 in a zone manager at each end of a ZM-to-ZM link 14.

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